THE INTEGRITY OF WATER

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THE INTEGRITY OF WATER

a symposium

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OPENING SESSION

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CHEMICAL INTEGRITY

Chairman: Dwight G. Ballinger, National Environmental Research Center, EPA, Cincinnati, Ohio

Speakers: Bostwick Ketchum, Director, Woods Hole Oceanographic Institute, Woods Hole, Massachusetts

Arnold Greenberg, Chief, Chemical and Radiological Laboratories, State of California Department of Public Health, Berkeley, California

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Chairman: Richard K. Ballentine, Water Quality Criteria Staff, EPA, Washington, D.C.

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John M. Wilkinson, A. D. Little, Inc., Cambridge, Massachusetts

BIOLOGICAL INTEGRITY— A QUALITATIVE APPRAISAL

Chairman: Leonard J. Guarraia, Water Quality Criteria Staff, EPA, Washington, D.C.

Speakers: David G. Frey, Indiana University, Bloomington, Indiana

George Woodwell, Brookhaven National Laboratories, Upton, Long Island, New York

Charles Coutant, Oak Ridge National Laboratory, Oak Ridge, Tennessee

Ruth Patrick, Chief, Curator of Limnology, Academy of Natural Sciences, Philadelphia, Pennsylvania

BIOLOGICAL INTEGRITY— A QUANTITATIVE DETERMINATION

Chairman: David G. Frey, Indiana University, Bloomington, Indiana

Speakers: Ray Johnson, National Science Foundation, Washington, D.C.

John Cairns, Virginia Polytechnic Institute and State University, Blacksburg, Virginia

Gerald T. Orlob, Resource Management Associates, Lafayette, California

J. P. H. Batteke, Chief, Social Sciences Division, Environment Canada, Burlington, Ontario

INTEGRITY—AN INTERPRETATION

Chairman: Martha Sager, Effluent Standards and Water Quality Information Advisory Committee, EPA, Washington, D.C.

Ronald B. Robie, Director, Department of Water Resources, The Resources Agency, Sacramento, California

Ronald B. Outen, National Resources Defense Council, Washington, D.C.

R. M. Billings, Director of Environmental Control, Kimberly-Clark, Neenah, Wisconsin

Gladwin Hill, National Environmental Correspondent, New York Times, New York

Following each presentation, Symposium participants were encouraged to question the speaker. These discussions were recorded by a professional reporting service and appear at the conclusion of each paper. They have been minimally edited, simply for clarification of the spoken word in print.

FOREWORD

"The Integrity of Water" results from the formal papers and comments presented at an invitational symposium by recognized water experts representing a variety of disciplines and societal interests. The focus of the symposium was on the definition and interpretation of water quality integrity as viewed and discussed by representatives of State governments, industry, academia, conservation and environmental groups, and others of the general public. The symposium was structured to address quantitative and qualitative characteristics of the physical, chemical, and biological properties of surface and ground waters.

It is recognized that streams, lakes, estuaries, and coastal marine waters vary in size and configuration, geologic features, and flow characteristics, and are influenced by climate and meteorological events, and the type and extent of human impact. The natural integrity of such waters may be determined partially by consulting historical records of water quality and species composition where available, by conducting ecological investigations of the area or of a comparable ecosystem, and through modeling studies that provide an estimation of the natural ecosystem based upon information available. Appropriate water quality criteria present quality goals that will provide for the protection of aquatic and associated wildlife, man and other users of water, and consumers of the aquatic life.

This volume adds another dimension to our recorded knowledge on water quality. It brings into sharp focus one of the basic issues associated with the protection and management of this Nation's valued aquatic resource. It highlights, once again, our unqualified dependence upon controlling water pollution if we are to continue to have a viable and complex society. The Congress has provided us with strong and comprehensive water pollution control laws. In accordance with the advances in research and development and with our increased knowledge about the environment, these laws will receive further congressional consideration and modification as appropriate. It is through the efforts of those who participated in making this volume possible that attention is focused once again on the basic goals of water quality to support the dynamic needs of this generation and of others to come.

Douglas M. Costle, Administrator
U.S. Environmental Protection Agency
June, 1977

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INCORPORATING ECOLOGICAL INTERPRETATION INTO BASIC STATUTES

THOMAS JORLING
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In the remarks of the two EPA representatives preceding me, I didn't perceive what I understand to be the 1972 Amendments; perhaps I should state a little bit about my background with the Act. I served on the staff of the Senate Committee on Public Works during the legislative process leading to the enactment of P.L. 92-500.

It is important to focus attention on one of the most innovative aspects of the 1972 Amendments; namely, the clear, unequivocal benchmark statement of biospheric integrity as the objective of the water pollution control effort. It's significant that it has taken 2½ years for EPA to focus attention on what is the overriding policy of the Act. The fact that it is 2½ years late and all other aspects of the Act are to be implemented under that rubric may account for many of the difficulties encountered in the implementation of the Act to date. I think part of the deep concern I had in listening to the EPA representatives stems from their failure to interpret the specific operational elements of the Act in terms of this policy. I hope to clarify that failure as I proceed.

The benchmark of biospheric integrity is a concept that will have an ever-widening circle of influence and we will see its applicability in many areas of human affairs, domestically and internationally. For instance, as a reference in the consideration of the ozone layer of the atmosphere, the production and use of energy, the movement of manmade chemicals in biogeochemical cycles, and so on. It will extend to providing a framework of making decisions applicable to such issues as contamination of the oceans, interbasin transfers of matter and energy, the supply of materials and water, food production, and even the size and character of our institutions. Yet, it is a difficult concept as the conference topics themselves attest and it is a concept on which the dialogue level should be high.

Prior to 1970, in the case of the Clean Air Act, and 1972 in the case of the Water Pollution Control Act, one would search in vain to find any statement of public policy with respect to the quality of the environment to be obtained under these earlier Federal-State programs. Neither air nor water pollution was defined. The objectives sought were nowhere stated. The regulatory statutes which were in effect at that time were circular, or bootstrap efforts to achieve what, no one knew. But whatever it was, it was to be "feasible."

Prior to 1972, the Water Pollution Control Act was vague on what Congress intended to be achieved. It did not define or otherwise describe water pollution. Rather, the Act stated that its purpose and its programs and procedures were "to achieve the prevention and control of water pollution."

Yet, that undefined notion of what constituted water pollution was further qualified in the Act's enforcement authority where a court, before issuing any final abatement order on whatever water pollution it found, was instructed to "give due consideration to the practicability of complying with such standards as may be applicable and the physical and economic feasibility of securing abatement of any pollution." It is not surprising, therefore, that abatement of water pollution was almost nonexistent under the earlier law.

The purpose of this conference is to discuss biological integrity or ecological integrity in the context of water pollution. I will, therefore, confine my remarks to the Water Pollution Control Act. However, I would be remiss if I did not point out that the ambient air standards structure and the Clean Air Act have very similar characteristics, especially when it is recalled that the secondary ambient air quality standard required to be achieved under the Clean Air Act provides for the protection of ecosystems from any adverse effects. However, acid rain measurements that reveal pHs as low as three and sometimes even below that, are being taken in areas (the northeastern U.S.) where the air quality is superior to the secondary standard, as presently promulgated. Therefore, the secondary standard, at least in the case of oxides of sulphur, is deficient.

In singling out the Federal Air and Water Pollution Control Laws, it should be noted that the deficiency which I have described—the failure of Congress to state what is to be achieved—is not unusual. In fact, in most modern statutes, Congress

has not stated with any degree of precision what is to be achieved by the programs it enacts. Rather, it has granted or extended to executive agencies broad, almost unbounded, discretion to determine what they are to do in a particular field and the only statutory reference is to do it within the amorphous standard of the public interest.

This is the root cause of executive branch dominance over Congress. Congress has been deficient in translating the public policy it desires to be achieved into specific norms. Rather, it has shifted the burden of establishing policy to the Executive Branch with few, if any, guidelines or criteria as to what, when, even how public policy is to be carried out. In such a situation, the Executive Branch becomes the forum in which negotiations are conducted, negotiations which really have no clear articulation of the alternatives or the assumptions. Perhaps that is sufficient in the regulation of business practices, consumer protection, and in other areas, but I doubt it. It is clear that such an approach is insufficient when the character of the life support system is at issue.

Incorporating ecological principles into regulatory statutes is not easy. Two quite different sets of problems are involved. The first set might be called philosophical, and the second practical.

In considering the philosophical, it is necessary to contrast the new program enacted in 1972 with the program it replaced because the two provide a conceptual framework in which to compare strongly divergent assumptions. Under the earlier program, the basic assumption was that the biosphere, and in particular the water component of the biosphere, was to be, and in fact existed to be, used. The specific language of the statute reflected this concept and we heard it described in both EPA presentations earlier. The measure of water quality was to be its "beneficial use." Without getting into the debate on the historical origins of the concept of "use" that have been described by Lynn White and others, it is sufficient for our purposes simply to say that earlier pollution control law was based on the assumption that the components of the environment existed to be used by man, a creature that somehow existed apart from and beyond the biosphere.

The new program has a different underpinning. It assumes that man is a component of the biosphere and that relationship we seek to achieve with the environment is what some have called "harmony." Under this view, man is an integral, if dominant, part of the structure and function of the biosphere. The intellectual roots of this perspective are found in the study of evolution. The objective of this concept is the maximum patterning of human communities after biogeochemical cycles with a minimum departure from the geological or background rates of change in the biosphere.

Within the subset of issues under the label "practical," we are looking at the question of whether or not a program which is established to achieve something—a principle, a purpose or an objective—will, in fact, achieve it. We must examine the age-old maxim, is it enforceable? Again, a comparison of the old with the new program provides insight into the tremendous differences relative to practical and enforcement questions.

A program premised upon the establishment of acceptable beneficial uses of water has inherent in it several layers of legal cause and effect relationships that enable easy frustration of enforceable requirements. First of all, there must be some notion, to the point of agreement, on what constitutes a "beneficial use." If we look at the old program we find that beneficial uses supposedly included public water supplies, fish and wildlife protection, agricultural, industrial and other uses. Following the establishment of the beneficial use for the water in question, there had to be agreement on the criteria or scientific numbers for pollutants which would establish and maintain the level of quality of the water which would allow carrying out the supposed use. It should be no surprise that the program did not speak in terms of specific pollutants. Rather, it referred to what, in fact, are effects of pollutants: BOD, chemical oxygen demand, pH, turbidity, suspended solids, and the like. The earlier program included a calculation of "the assimilative capacity" which can be defined as that volume of pollutants which could be processed, treated, or otherwise disposed of in the receiving waters while still maintaining the designated use.

The calculation of such an assimilative capacity assumed knowledge of the structure and function of the aquatic ecosystems over long periods of time, which simply does not exist and will not exist into the indefinite future. Consequently, assimilative capacity became a rather rough, negotiated estimate, often made by lawyers and engineers, certainly not by biologists, of what waste treatment services could be rendered by a particular reach of water. This calculation, or more accurately negotiated agreement of assimilative capacity, coupled with a determination of acceptable beneficial use and an agreement on the specific numbers or criteria, created circumstances in which compromise and indefinite delay operated to frustrate enforceability.

Let us consider, for instance, what was included in any estimate of criteria of water quality necessary to meet a given use. There must have been a

prior estimate of the amount and effect of the input of pollutants from upstream waters. There must have been a prior estimate of the cumulative effect of all pollutants on downstream waters, especially the oceans. And we must continually recall that rivers continue to be the most significant contributor of pollutants to the estuaries and the ocean. There had to be a prior estimate of the amount and effects of knowable and unknowable nonpoint sources of pollutants. There must have been a complete knowledge of all components of the waste stream which, as the EPA representatives earlier admitted, is not even known at the present time. There must be complete and accurate monitoring of both the waste discharge stream and the ambient environment, another factor which does not yet exist.

It must be emphasized that all of these estimates were highly amenable to negotiation and to compromise and, more importantly, contained extremely high probabilities of error. It must also be emphasized that all of these estimates would have to be established before any consideration was given to determining effluent limitations or controls applicable to specific sources of pollutants.

Error in any sequential program in which later estimates are based upon prior estimates is multiplied in the final result. So, in addition to concepts such as beneficial use and assimilative capacity, the control program required further logical gymnastics such as the provision of mixing zones which, of course, are defined as those areas of greater or lesser distance around an outfall source in which measurements are not taken. Mixing zones are strictly for the purpose of allowing another layer of negotiation and compromise, always with the burden of proof on the government, the public, and the environment.

The net effect of the program was the application of controls which were fully in accord with and acceptable to the interests of the discharge source. More importantly, the whole program assumed that matter and energy moved in linear pathways. It was fundamentally opposite to the notion of keeping matter and energy within constraining circles or cycles.

The practical aspects of the new program require controls to be set for sources of pollutants without regard to the ambient environment. The control measures adopted are referenced to the present ability to recycle materials, energy, and water within the overall objective of complete recycling systems for industrial, municipal, and agricultural activities. There are, to be sure, opportunities to apply other factors in the consideration of what controls are to be imposed at particular times. The Act is structured so that time itself is the major factor, as performance of sources will be reviewed regularly every 5 years, always under the overall policy of looking towards the reclaiming of pollutants and the recycling of water. It is a happy coincidence when enforceability and the philosophical premise neatly complement each other.

It is appropriate now, almost 2 years and 6 months following enactment of this major change in public policy, to review how it has been received and implemented. Many good things have happened. Perhaps this conference is one of them, late though it is. I will not spend time reciting what good has been done, but rather focus on certain elements of the implementation process as they relate to the concept of ecological integrity.

Here the results are not so good. Let us look at a few specific examples. The first from the municipal waste treatment program. Along about 1900, legitimate concern with disease, especially cholera and typhoid, led to radical change in the view of municipal waste in this country. Prior to that time, the perspective, where there was one, was generally compatible with modern ecological principles. However, at about that time and in large part continuing through to today, our efforts at handling municipal waste shifted to a policy that can be characterized as chlorinate and dump. This notion, incidentally, based on the premise that the natural water systems perform waste treatment services, was greatly facilitated by the program of pollution control in effect prior to 1972.

Possibly reflecting the rural character of our population before 1900, it was common to incorporate sewage through the application of such "waste" to the land and agricultural activities—so-called sewage farms. In a word, nutrients of high value were returned to the biogeochemical cycles from which they came. Even in large communities, such as Berlin, Paris, and Melbourne, sewage systems had this characteristic.

In an ecological context, they make sense. But the sense they make cannot be made clear unless the components of municipal waste are broken down into their specific biological, chemical, and physical characteristics, a trilogy of words that appears often in the new Act.

Thus, under the 1972 Amendments, the EPA Administrator was given 1 year to translate the old sanitary engineering notion of secondary treatment into a definition conforming to the requirements of the 1972 Act: specifically, to write an effluent limitation at the level of performance achieved by secondary treatment, as defined in Section 502, a restriction "established by a State or the Administrator on quantities, rates and concentrations of

chemical, physical, and biological and other constituents which are discharged from point sources into the navigable waters."

The Administrator, after the lapse of more than a year, promulgated an effluent limitation for secondary treatment which was written in terms that could have been written in the 1920's. Secondary treatment was defined on August 17, 1973, in terms of BOD, suspended solids, pH, and fecal coliform content. Such a definition reveals no understanding of the ecological character of municipal waste. BOD is not a pollutant, it is an effect of a class of pollutants of organic character.

Municipal waste is comprised of, among other things, phosphorus, potassium, and nitrogen, the standard nutrients of commercial fertilizer. These materials should have been incorporated into a new ecological definition of secondary treatment. Yet, this was not done and has not yet been done.

Similarly, since municipal waste is, by the promulgated definition of EPA, considered to include only those things which cause the effects recited in the definition, there is no recognition of the fact that many exotic chemicals, including heavy metals and pathogens, are working their way into the municipal waste streams as a result of the use of such materials in industrial operations, hospitals, and even in household cleaners and the like.

Until we move to the identification of the specific biological, chemical, and physical constituents of the municipal waste stream, we are not going to be given the conceptual framework in which to move towards recycling.

More ominous than the activity of EPA in defining the secondary treatment effluent limitation has been the interpretation of the Phase II or 1983 requirements for municipal waste treatment systems. These are termed in the Act as the "best practicable waste treatment technology." Under the Act, as recited in Section 201, these requirements are to provide for "the reclaiming and recycling of water and the confined and contained disposal of pollutants so they will not migrate to cause water or other environmental pollution."

Rather than promulgate a specific effluent limitation for the specific and different systems that meet this test, EPA is now defining the Phase II requirement in what can be characterized as an ambient water quality standard.

This failure of EPA to translate the municipal waste treatment requirements specifically in terms of recycling flies in the face of the Act and is potentially the most damaging aspect of implementation. If continued, it will prevent any restructuring of society in accordance with ecological integrity. One would hope that as the Agency continually evaluates its position it will act in a manner more consistent with the spirit and the letter of the law.

A second example. Many States and the EPA are issuing permits under Section 402 which speak in terms of mixing zones even though the definition of effluent limitation under the Act does not admit such a concept. The Agency continues to opt for escape from enforceability which the mixing zone represents. A mixing zone always affords an alleged polluter the defense that it was not his effluent which caused or contributed to the violation at some arbitrary circle around an outfall, but rather, to plead and shift the impossible burden to the government and to the public, that it was the upstream waste load, or even the flow characteristics of the stream that caused the pollution.

Mixing zones are inherently unenforceable. In fact, under the Enforcement Section, Section 309, there is no statutory authority to enforce such provisions.

Perhaps the most important aspect for the ecological notion of reincorporation of matter and energy into biological cycles has been woven into the Act in Section 208, the Planning and Management Section. In part, this process should have been viewed by the Agency as an educational opportunity for the citizens of this country. I might add here that before educating the citizens of the country, I would have hoped that EPA would have sponsored within its own structure and for its own personnel a program similar to the Water Quality Institutes for citizens that were sponsored by the Conservation Foundation throughout the country. I think it's very important that everyone be educated to the new concepts that are in this Act.

We have come a long way from our rural tradition, where experience with growing organisms was a part of everyday life, to the point where a great majority of our citizens live in urban concentrations and have no experience with living systems. Food, energy, and housing tend to be viewed in such a culture as simply technological products. So also the management of waste. Yet ultimately, all of these life support requirements are drawn from and have their source in the biosphere.

Section 208 provides an opportunity of great significance to view human habitations from the perspective of ecological systems, to incorporate nutrient material back into the cycles from which they came, and to prevent the escape of exotic chemicals. However, as part of the general resistance of this Agency and the Administration to Section 208, this educational opportunity has fallen by the wayside. Our urban citizens are not being given information concerning the nature of so-called waste material and the possibilities of including it in

the production of, for instance, foodstuffs. Rather, they are simply told that the waste treatment problem is an engineering problem. "Pour concrete on it" is the message.

Food, energy, and materials are all being produced at greater and greater distances—geographical and technological distances—from our people. Such remote systems make population centers very vulnerable to disruption and hostage to systems of delivery.

The water pollution control program could have provided a counterpoint to such trends. It could and should enable us to look at the structure and functioning of human communities, much as we look at natural communities, in terms of biogeochemical cycling. We could and still can, under the Act, move in these directions.

In addition to the specific areas where implementation has failed to live up to the promise and purpose of the 1972 Amendments—the policy of ecological integrity—there has been a growing trend to impose so-called balancing, tradeoff, or benefit cost analysis in establishing goals, objectives and other requirements under the Act.

Cost and benefits are inextricably a function of the system in which they are applied. They operate as positive and negative feedback mechanisms to keep the system on the course on which it is embarked, whether or not we know where it is going. Perhaps here it might be useful to add what I think is an accurate description of where our system is going. It comes from H. G. Wells' lament in the classic paper, "Mind at the End of Its Tether."

"Everything was driving anyhow to anywhere at a steadily increasing velocity."

Simply put, applying costs and benefits assures that society will not materially change; for, by definition, any change which would cause a significant alteration in any pattern of the existing society in terms of employment patterns, altered consumer patterns, reducing or limiting the amount of capital or its return, or whatever, is an unacceptable cost.

Thus, applying benefit and cost analysis assures that our society will not change. The crucial question is whether the crusade to benefit cost or balance every decision, especially decisions relating to public policy objectives, will do anything more than improve the efficiency of the society in moving along its course. My answer is, probably not. That is, not until society comes to terms with at least some basic elements of its destiny. Benefits and cost should determine means, not ends.

The 1972 Amendments' Statement of Ecological Integrity is a statement of ends. That is, what is to be achieved. Put this way, it provides perspective within which to make judgments about our future. It provides a planning and a regulatory mechanism. It provides an opportunity, if we use it, to look at the structure and functioning of human communities as elements in the overall biosphere and make judgments about the life support requirements of those human communities.

This is a tall order. Yet it is the direction in which we must move; it is the legacy of the concept of ecological integrity.

DISCUSSION

Comment: Under CFR 133, our Agency has defined secondary treatment in terms of effluent levels; that is, for BOD, suspended solids, and microbiology. There is an effort afoot now to remove the microbiological effluent level from that definition based upon the justification of conflict of beneficial uses and energy requirements. I'm just wondering if you would like to say a little bit about that.

Mr. Jorling: Curiously enough, the fecal coliform is the only specific pollutant which is included within the definition. It is something which is discharged and is measurable specifically. I suspect it's not just coincidence that it is a specific pollutant and that there are attempts to remove it from the definition.

With that much said, I'm still concerned because I do believe the singular attention to fecal coliform is unnecessary. There should be attention towards all the pathogenic materials in the municipal waste stream. But such attention should be referenced to specific pathogens and not so much to *E coli*. Of course, it's an easily identifiable bacteria and we had, back in the early stages of public health, the ability to test for it. Then followed guilt by association—if you found *E coli* you also had cholera and other potential disease causing organisms.

I think we should go beyond that stage now, placing less emphasis on fecal coliforms and move to other systems of waste treatment management and focus on the more commonly known and also more pathogenic materials in the municipal waste stream.

Comment: How do you protect the integrity of the ground water with application of land treatment systems? Are the two integrities compatible?

Mr. Jorling: I believe so, with effective management. I don't think if you're considering reapplication of waste water to agricultural, aquacultural, silvicultural, or other activities, that you just indiscriminately apply that waste to the soils. What you do is make studies of the particular climate, geological factors, and soil formations you are working with and include within those calculations ground water considerations.

I don't think there's anything incompatible between the two. Properly managed, a system of reapplication of waste water to the land can be done without jeopardy; in fact, it can enhance, in the sense of not depleting, the groundwater system.

Comment: Do you think that a significant retooling of what is now the sanitary engineering community would be required before any significant move to the recycling system with regard to municipal waste?

Mr. Jorling: I guess, to be honest, a brief answer to that question would be "yes." The sanitary engineering community, primarily the consulting engineers who advise the communities around the country of what their problem is and how to solve it, has long, tenuous roots in water pollution control. It goes back to the problems with disease that I mentioned in my statement and the chlorinate and dump philosophy. Retooling is a difficult thing to achieve in any situation. I would hope at least educational efforts would be undertaken. Yet, from the perspective that I now observe the program, that is, from a community that's trying to put in a waste treatment facility, it's obvious that there is nothing from the top coming down to the regional offices, to the States, or to the communities with respect to these concepts.

Rather, the attitude is still, very simply, pour concrete on it. Pull out the old form for a secondary plant, like a lawyer pulls out a will, and build it. That's what we still observe. So we do need a tremendous amount of innovation and education within the structure of the water pollution control program as well as what I suggested, which is an educational effort among the citizens of the country on what their life support needs and requirements are.

Comment: I'd just like to comment on this exchange that took place. In Illinois we have had over the past few years at least two significant major proposals for wastewater recycling or some form of recycling of municipal waste on a large scale. One of them has been implemented by Metropolitan Sanitary District of Greater Chicago in their prairie plant. The other, the infamous study of the Chicago District Corps of Engineers has not been implemented and, I think it's safe to say, won't be. In both cases, these are proposals that have been made by the sanitary engineers and have run up against a great deal of extreme resistance, not by the urban people who are generating the waste, not by the technical people who must design the system, but, surprisingly enough and I think counter to your comment earlier, by the rural residents who don't want that Chicago waste material deposited upon their farm lands. Would you care to comment on that problem?

Mr. Jorling: I'm not as familiar with the circumstances of this as you are, but I do recognize the accuracy of your comment that the opposition was generated in the northern areas of Indiana. I'm not sure that the reaction had its initiation with the rural residents as much as it had with some of the political representatives of those people. Once the momentum of reaction was established it was impossible to reinject rationality. It became impossible to consider what the material was and what it could represent. I think, also, the Corps of Engineers and the Environmental Protection Agency instead of operating in diverse directions when that study was being performed could have worked in harmony with the 1972 Act and could have overcome a large measure of that opposition in advance instead of just standing above Northern Indiana, as it were, proposing to drop all the waste of Chicago on it, unbeknownst to the people of Indiana. Until that time there could have been much more working with people. Section 208 incidentally, provides that vehicle.